UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/671,245	09/28/2000	Masahiro Ishiyama	197808US2RD	7469

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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER
STRANGE, AARON N

ART UNIT	PAPER NUMBER
2153	

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/671,245	ISHIYAMA, MASAHIRO
	Examiner	Art Unit	
	Aaron Strange	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _24 October 2005_.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-14_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-14_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   Based on the amendments to the independent claims, and the interview

conducted on 10/13/2005, it appears that Applicant intends to amend the present claims

to indicate that a second server, despite responding to an inquiry slower than a first

server, is selected by virtue of having a priority than the first server. However, in the

interest of expedited prosecution, the Examiner would like to point out that the current

limitations of the claims do not clearly show this.

The current claims merely state that the response from the second server is

received by the response receiving means "after receiving the first domain name inquiry

response" (Claim 1, Line 22). A system which always selected the fastest server could

still meet this limitation since the claims do not specify that the requests are sent at the

same start time, so a second response received after a first response could be received

faster if its corresponding request was sent after the request for the first response.

The Examiner recommends amending the current claims to specify that the first

and second requests were sent at the same time or a similar amendment that clearly

shows that the second response is from a computer that was not the fastest to respond.

Response to Arguments

2.   Applicant's arguments filed 10/24/2005 have been fully considered but they are

not persuasive.

3.   With regard to claims 1-7, and Applicant's assertion that the specification

Provides support for "selecting a domain name server…based at least on the IP

address included in the server information and the start time of the domain name inquiry

request", the Examiner respectfully disagrees. Applicant again cites page 38, lines 18-

24 of the specification, in addition to page 15, lines 8-12 and page 14, lines 18-24.

Applicant asserts that "a selection made between servers DA1 and DE1 is at least to

some extent based on the IP address of the servers" (Page 16, Line 24 to Page 16, Line

2 of Remarks). The cited sections do not appear to describe selection of a server

"based on" any IP address. At best, the specification may describe using the IP address

to select a table entry containing additional information about the server. However, the

server itself is not chosen "based on" the IP address. If Applicant is referring to the

operation of selecting a table entry as being "based on" the IP address, the Examiner

recommends amending the claims to clearly show this.

4.   With regard to claim 1, and Applicant's assertion that "Logan and Elz do not

teach or suggest a name system server inquiry selection method that selects a server

based on a priority of the domain name system server" (Page 17, Lines 12-14 of

Remarks), the Examiner respectfully disagrees. Logan discloses selecting servers

based on a priority of the server and discloses multiple methods of prioritizing servers.

For example, Logan discloses selecting the site that "imposes minimum delays" (Col 5,

Lines 55-57), the site that is least costly (Col 5, Lines 57-59), the site that is

geographically closest to a user (Col 9, Line 60 to Col 10, Line 15).

With regard to Applicant's assertion that Logan and Elz "fail to teach or suggest 'request responding means for selecting the second domain name system server based on at least a priority of the second domain name server being higher than a priority of the first domain name system server'", the Examiner respectfully disagrees. As discussed above, Logan discloses several methods of prioritizing servers which may result in the slower server being chosen, such as cost or geographic location.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al. (US 6,578,066) in view of Elz et al. ("RFC 2182").

7.   In regards to claim 1, Logan discloses a domain name system inquiry apparatus comprising:

current location information receiving means for receiving location information of the apparatus itself on a connected network (by resolving the request, the receiving means determines the location of a client on the network, col 10 lines52-57);

current location management means for storing location information received by said current location information receiving means (this information is temporarily stored for checking the information versus a table of server locations);

server information receiving means for receiving server information regarding plural redundant servers to which an inquiry can be made, said server information including an IP address (The switch examines the hand-off table for determining a server to hand off to, col 10 lines 58-62, the table including IP addresses);

server management means for storing the server information received by said server information receiving means (a hand off table is stored for all the servers, col 10 lines 58-62 discusses the use of the table);

request receiving means for receiving a first inquiry request to a first redundant server and a second inquiry request to a second redundant server from a client (a request is received from a client, col 10 lines 52- 57) and for storing the start time of each inquiry request (Col 6, Lines 21-35);

request transferring means for transferring the inquiry request received by said request receiving means to at the first and second servers based on at least one of said location information and said server information (the switch determines a server to hand off the request to, transferring the inquiry, col 10, lines 58-62);

response receiving means for receiving a first response to the first inquiry request from the first redundant server and a second inquiry response to the second inquiry response from the second redundant server after receiving the first inquiry

response (numerous responses can be received and forwarded by the switch, col 10

line 62-65); and

request responding means for selecting the second server based at least on a

priority of the second redundant server being higher than a priority of the first redundant

server (least costly server; Col 5, Lines 57-59)(closest server; Col 9, Line 60 to Col 10,

Line 15), the IP address included in the server information and the start time of the

domain name inquiry request (Col 6, Lines 21-35) and for sending the selected

response result to said client (an ordered list is sent to the client, with the best server

being given priority, col 10 lines 58-65).

Logan fails to specifically disclose that the redundant servers are DNS servers.

However, redundant DNS servers are well known in the art, as evidenced by Elz.

Elz teaches the use of multiple DNS servers to allow clients around the world to

reliably reach a DNS server in the event that one is unavailable, as well as reduce the

load on the primary DNS server for the zone. Using DNS servers in the system

disclosed by Logan would be extremely advantageous since it would allow clients to

locate the best DNS server from the group of redundant servers to sent their resolution

requests. Since name resolution requests must be completed before content may be

retreived, using the fastest, closest, and/or cheapest DNS server for each client could

greatly reduce the overall latency and/or cost experienced by that client.

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to use the system disclosed by Logan to select the best

DNS server for each client so that the latency/cost of content requests would be

reduced and the load on the DNS servers would be balanced among the redundant

secondary DNS servers.

8.   In regards to claim 2, Logan further discloses:

algorithm receiving means for receiving an algorithm for selecting said response

result (a health check is done, which is an algorithmic examination of the network and

the servers, col 5 line 60 - col 6 line 41);

algorithm management means for storing the algorithm received by said

algorithm receiving means (the algorithm is stored by the checking system, tables I-IV

show the details of the algorithms);

algorithm processing means for selecting the second response result in said

request responding means by using the algorithm stored in said algorithm management

means (the results of the algorithmic expression are searched and the most appropriate

response is found and forwarded to the client, col 10 lines 37-65).

9.   Claims 3,5, and 6 are rejected for the reasons cited above with regard to claim 1,

since they recite substantially identical subject matter.

10.   Claims 4 and 7 are rejected for the reasons cited above with regard to claim 2,

since they recite substantially identical subject matter.

11.   Claims 8-14 rejected under 35 U.S.C. 103(a) as being unpatentable over Logan

et al. (US 6,578,066) in view of Elz et al. ("RFC 2182").

12.   In regards to claim 8, Logan discloses a domain name system inquiry apparatus

comprising:

current location information receiving means for receiving location information of

the apparatus itself on a connected network (by resolving the request, the receiving

means determines the location of a client on the network, col 10 lines52-57);

current location management means for storing location information received by

said current location information receiving means (this information is temporarily stored

for checking the information versus a table of server locations);

server information receiving means for receiving server information regarding

plural redundant servers to which an inquiry can be made, said server information

including a failure counter (The switch examines the hand-off table for determining a

server to hand off to, col 10 lines 58-62, the table using an algorithm to calculate server

information including a server health test, which measures various times associated

with the server, including throughput times and calculates levels considered to be

potential failures, col 5 line 60 - col 6 line 41 discusses the health tests);

server management means for storing the server information received by said

server information receiving means (a hand off table is stored for all the servers, col 10

lines 58-62 discusses the use of the table);

request receiving means for receiving a first inquiry request to a first redundant

server and a second inquiry request to a second redundant server from a client (a

request is received from a client, col 10 lines 52- 57) and for storing the start time of

each inquiry request (Col 6, Lines 21-35);

request transferring means for transferring the inquiry request received by said

request receiving means to at the first and second servers based on at least one of said

location information and said server information (the switch determines a server to hand

off the request to, transferring the inquiry, col 10, lines 58-62);

response receiving means for receiving a first response to the first inquiry

request from the first redundant server and a second inquiry response to the second

inquiry response from the second redundant server after receiving the first inquiry

response (numerous responses can be received and forwarded by the switch, col 10

line 62-65); and

request responding means for selecting the second server based at least on a

priority of the second redundant server being higher than a priority of the first redundant

server (least costly server; Col 5, Lines 57-59)(closest server; Col 9, Line 60 to Col 10,

Line 15), the failure counter included in the server information and the start time of the

inquiry request (Col 6, Lines 21-35) and for sending the selected response result to said

client (an ordered list is sent to the client, with the best server being given priority, col 10

lines 58-65).

Logan fails to specifically disclose that the redundant servers are DNS servers.

However, redundant DNS servers are well known in the art, as evidenced by Elz.

Elz teaches the use of multiple DNS servers to allow clients around the world to

reliably reach a DNS server in the event that one is unavailable, as well as reduce the

load on the primary DNS server for the zone. Using DNS servers in the system

disclosed by Logan would be extremely advantageous since it would allow clients to

locate the best DNS server from the group of redundant servers to sent their resolution

requests. Since name resolution requests must be completed before content may be

retrieved, using the fastest DNS server for each client could greatly reduce the overall

latency experienced by that client.

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to use the system disclosed by Logan to select the fastest

DNS server for each client so that the latency of content requests would be reduced and

the load on the DNS servers would be balances among the redundant secondary DNS

servers.

13.   In regards to claim 9, Logan discloses a domain name system inquiry apparatus,

further comprising:

algorithm receiving means for receiving an algorithm for selecting said second

one response result (a health check is done, which is an algorithmic examination of the

network and the servers, col 5 line 60 - col 6 line 41);

algorithm management means for storing the algorithm received by said

algorithm receiving means (the algorithm is stored by the checking system, tables I-IV

show the details of the algorithms);

algorithm processing means for selecting said particular one response result in

said request responding means by using the algorithm stored in said algorithm

management means (the results of the algorithmic expression are searched and the

most appropriate response is found and forwarded to the client, col 10 lines 37-65).

14.   Claims 10,12, and 13 are rejected for the reasons cited above with regard to

claim 8, since they recite substantially identical subject matter.

15.   Claims 11 and 14 are rejected for the reasons cited above with regard to claim 9,

since they recite substantially identical subject matter.

Conclusion

16.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Aaron Strange whose telephone number is 571-272-

3959. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Glen Burgess can be reached on 571-272-3949. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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published applications may be obtained from either Private PAIR or Public PAIR.

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

AS
1/19/06

KRISNA LIM
PRIMARY EXAMINER